APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,442	01/18/2002	Sundeep Chandhoke	5150-58200	3493

			EXAMINER
35690	7590	04/20/2006	HANNE, SARA M

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
700 LAVACA, SUITE 800
AUSTIN, TX 78701

ART UNIT	PAPER NUMBER
2179	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/051,442	CHANDHOKE ET AL.
	Examiner	Art Unit	
	Sara M. Hanne	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 January 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-24,26-30,32-40,42-46,48-54,57-62 and 66-81* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6-24, 26-30, 32-40, 42-46, 48-54, 57-62 and 66-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/13/06*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the RCE received on January 26, 2006. Claims 1-4,

6-24, 26-30, 32-40, 42-46, 48-54, 57-62 and 66-81 are pending in this application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 1-4, 6-24, 26-30, 32-40, 42-44, 53-54, 57-62, 66-79 and 81 are rejected

under 35 U.S.C. 112, first paragraph, as failing to comply with the written description

requirement. The claim(s) contains subject matter which was not described in the

specification in such a way as to reasonably convey to one skilled in the relevant art that

the inventor(s), at the time the application was filed, had possession of the claimed

invention.

Claims 1, 30, 36, 37, 43, 44, 53 and 61 recite the limitations regarding acquiring

measurement data of a device under test based on an electrical signal from a sensor

device coupled to the device under test. The specification does not support electrical

signals from sensor devices used in conjunction with a measurement operation.

Drawings

4.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show

every feature of the invention specified in the claims. Therefore, the acquiring

measurement data of a device under test based on an electrical signal from a sensor

device coupled to the device under test must be shown or the feature(s) canceled from

the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 53-54, 57-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Blowers et al., US Patent 6298474, herinafter Blowers.

As in Claim 53, Blowers teaches a computer-implemented method, memory medium and system for creating a prototype that includes machine vision, and data acquisition (DAQ) functionality, the method comprising: displaying a graphical user interface (GUI) that provides GUI access to a set of operations (Col. 8, line 61 et seq.), wherein the set of operations includes, one or more machine vision operations, and one or more DAQ operations; creating a sequence of operations, including operations in the sequence in response to user input selecting each operation in the operations from the GUI (Col. 3, lines 20-45), the plurality of operations are included in the sequence without receiving user input specifying program code for performing the plurality of operations (Col. 3, line 64 et seq.), wherein the operations included in the sequence includes a machine vision operation and a data acquisition operation (Col. 8, lines 9-19), wherein the data acquisition operation is operable to control a DAQ measurement device to acquire measurement data of a device (Col. 11, line 65 et seq. and Caliper tool 63) under test based on an electrical signal from a sensor device coupled to the device under test (computer sensor for Caliper tool 63) and storing information representing the sequence of operations in a data structure (Col. 13, lines 10-54),

wherein the sequence of operations comprises the prototype (Figure 6 and corresponding text).

As in Claim 54, Blowers teaches accessing the data structure to determine operations in the sequence; determining software routines to execute in order to perform the operations in the sequence and executing the software routines (Col. 8, line 61 et seq.).

As in Claim 57, Blowers teaches wherein the prototype is operable to perform acquiring images of the device under test, analyze the acquired images of the device under test; and acquiring measurement data of the device under test (Col. 11, line 65 et seq.).

As in Claim 58, Blowers teaches the prototype is operable control an image acquisition device to acquire an image of the device under test; and control a data acquisition measurement device to acquire measurement data of the device under test (Col. 11, line 65 et seq.).

As in Claim 59, Blowers teaches performing the sequence of operations by executing software rountines in order to perform each operation in the sequence (Col. 4, line 64 et seq.).

As in Claim 60, Blowers teaches automatically generating a graphical program based on the sequence of operations executable to perform the sequence of operations, a plurality of interconnected nodes ("developing a graphical, control flow structure such as a tree structure", Col. 3, lines 15-16) that visually indicate functionality

of the graphical program (Col. 8, line 49 et seq.) and automatically including the nodes

without specifying user input of the nodes (Col. 3). (Col. 8, line 61 et seq.).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-4, 6-20, 24, 26-30, 32-40, 42-46, 48-52, 61-62, 66-69, 71-73, 76 and 78

are rejected under 35 U.S.C. 103(a) as being unpatentable over Blowers et al., US

Patent 6298474, herinafter Blowers, and further in view of Weinhofer, US Patent

6442442.

As in Claims 1, 37, 43-45 and 61, Blowers teaches a computer-implemented

method, memory medium and system for creating a prototype that includes machine

vision, and data acquisition (DAQ) functionality, the method comprising: displaying a

graphical user interface (GUI) that provides GUI access to a set of operations (Col. 8,

line 61 et seq.), wherein the set of operations includes, one or more machine vision

operations, and one or more DAQ operations; creating a sequence of operations,

including operations in the sequence in response to user input selecting each operation

in the operations from the GUI (Col. 3, lines 20-45), the plurality of operations are

included in the sequence without receiving user input specifying program code for

performing the plurality of operations (Col. 3, line 64 et seq.), wherein the operations

included in the sequence includes a machine vision operation and a data acquisition

operation (Col. 8, lines 9-19), wherein the data acquisition operation is operable to

control a DAQ measurement device to acquire measurement data of a device (Col. 11,

line 65 et seq. and Caliper tool 63) under test based on an electrical signal from a

sensor device coupled to the device under test (computer sensor for Caliper tool 63)

and storing information representing the sequence of operations in a data structure

(Col. 13, lines 10-54), wherein the sequence of operations comprises the prototype

(Figure 6 and corresponding text) an the processor is operable to execute the sequence

of operations (Figure 3 and corresponding text).   While Blowers teaches machine vision

and data acquisition operations controlled by a GUI through a user specified sequence

of operations in a data structure, they fail to show the motion control functionality with a

motion control operation as recited in the claims. In the same field of the invention,

Weinhofer teaches a graphical interface for creating a prototype through a specified

sequence of operations in a data structure similar to that of Blowers. In addition,

Weinhofer further teaches motion control operation and functionality through graphical

programming (Col. 3, line 63 et seq. and Fig. 3). It would have been obvious to one of

ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the

time the invention was made, to modify the machine vision and data acquisition

operations and functionality controlled by a GUI through a user specified sequence of

operations in a data structure taught by Blowers to include the motion control operation

and functionality of Weinhofer, in order to obtain a graphical programming interface for

machine vision, data acquisition and motion control. One would have been motivated to

make such a combination because an all-purpose graphical automotive controller would

have been obtained, as taught by Weinhofer.

As in Claims 2, 38, 46 and 62, Blowers teaches accessing the data structure to

determine operations in the sequence and executing the software routines (Col. 8, line

61 et seq.).

As in Claims 3, 35 and 39, Blowers teaches receiving user input to the graphical

user interface specifying a first parameter value for a first operation in the sequence

wherein storing the information representing the sequence of operations in the data

structure comprises storing the first parameter value in the data structure; wherein the

method further comprises executing software routines corresponding to operations in

the sequence, wherein executing comprises executing a first software routine

corresponding to the first operation, passing the first parameter value to the first

software routine (Col. 9, line 7 et seq.).

As in Claims 4 and 40, Blowers teaches the information representing the

sequence of operations in the data structure does not comprise programming code (Col.

3, line 64 et seq.).

As in Claim 6, Blowers teaches wherein the machine vision operation in the

sequence is operable to perform one of acquiring image of the device under test, or

analyze the acquired image of the device under test; and acquiring measurement data

from a DAQ device (Col. 11, line 65 et seq. and Caliper tool 63).

As in Claims 7-8, 30, 42, 48-49, Blowers teaches wherein the machine vision

operation in the sequence is operable to perform one of acquiring image of the device

under test, or analyze the acquired image of the device under test; and acquiring

measurement data from a DAQ device (Col. 11, line 65 et seq. and Caliper tool 63).

While Blowers teaches machine vision and data acquisition operations controlled by a

GUI through a user specified sequence of operations in a data structure, they fail to

show the motion control functionality with a motion control operation as recited in the

claims. In the same field of the invention, Weinhofer teaches a graphical interface for

creating a prototype through a specified sequence of operations in a data structure

similar to that of Blowers. In addition, Weinhofer further teaches a motion control

operation to move a device under test (Col. 3, line 63 et seq. and Fig. 3). It would have

been obvious to one of ordinary skill in the art, having the teachings of Blowers and

Weinhofer before him at the time the invention was made, to modify the machine vision

and data acquisition operations and functionality controlled by a GUI through a user

specified sequence of operations in a data structure taught by Blowers to include the

motion control operation and functionality of Weinhofer, in order to obtain a graphical

programming interface for machine vision, data acquisition and motion control. One

would have been motivated to make such a combination because an all-purpose

graphical automotive controller would have been obtained, as taught by Weinhofer.

As in Claims 9, 36, 50 and 66, wherein the prototype is operable control an

image acquisition device to acquire an image of the device under test; and control a

data acquisition measurement device to acquire the measurement data of the device

under test(Col. 11, line 65 et seq.) and all of the limitations of Claim 1 *supra*. While

Blowers teaches machine vision and data acquisition operations controlled by a GUI

through a user specified sequence of operations in a data structure, they fail to show

the motion control functionality with a motion control operation to move an the device

under test as recited in the claims. In the same field of the invention, Weinhofer

teaches a graphical interface for creating a prototype through a specified sequence of

operations in a data structure similar to that of Blowers. In addition, Weinhofer further

teaches motion control operation and functionality to move an object through graphical

programming (Col. 3, line 63 et seq. and Fig. 3). It would have been obvious to one of

ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the

time the invention was made, to modify the machine vision and data acquisition

operations and functionality controlled by a GUI through a user specified sequence of

operations in a data structure taught by Blowers to include the motion control operation

and functionality of Weinhofer, in order to obtain a graphical programming interface for

machine vision, data acquisition and motion control. One would have been motivated to

make such a combination because an all-purpose graphical automotive controller would

have been obtained, as taught by Weinhofer.

As in Claims 10, 51 and 67, Blowers teaches performing the sequence of

operations by executing software routines in order to perform each operation in the

sequence (Col. 4, line 64 et seq.).

As in Claim 11, Blowers teaches creating program instructions executable to

perform the sequence of operations; executing the program instructions (Col. 2, line 47

et seq.),

As in Claim 12, Blowers teaches configuring a first operation in the sequence in response to user input specifying configuration information for the first operation, which changes a function performed by the first operation, displaying information in response to user input specifying the configuration information to visually indicate the change in the function performed by the first operation (Col. 9, lines 1-10, Col. 11, line 15).

As in Claim 13, Blowers teaches wherein user input specifying configuration information for the first operation does not include user input specifying program code (Col. 3, lines 64-65).

As in Claim 14, Blowers teaches displaying a graphical panel including graphical user interface elements for setting properties of the first operation and the user input to the graphical panel to set one or more properties of the first operation (Figures 5-7 with corresponding text).

As in Claim 15, Blowers teaches the graphical panel is automatically displayed in response to including the first operation in the sequence (Col. 9, line 7 et seq. and Col. 12, lines 8-10).

As in Claim 16, Blowers teaches receiving user input requesting to configure the first operation, user input to the a graphical panel for configuring the first operation in response to the request (Col. 8, line 61 et seq.).

As in Claim 17, Blowers teaches the graphical user interface includes an area which visually represents the operations in the sequence (Figure 7 and corresponding text); wherein the method further comprises: for each operation included in the sequence, updating the area usually representing the operations in the sequence to

illustrate the included operation in response to user input selecting operation from the
GUI (simple drag-drop functionality, Col. 8, line 61 et seq.).

As in Claim 18, Blowers teaches the area visually representing the operations in
the sequence displays icons (Figure 7 and corresponding text), wherein each icon
visually indicates one of the operations in the Sequence (Col. 8, lines 64-66); wherein
said updating the area visually representing the operations in the sequence to illustrate
the included operation comprises displaying a new icon to visually indicate the included
operation (simple drag-drop functionality, Col. 8, line 61 et seq.).

As in Claim 19, Blowers teaches the graphical user interface displays buttons,
wherein each button corresponds to a particular operation and is operable to add the
operation to the sequence in response to user input selecting a button; including the
operations in the sequence in response to user input selecting a buttons from the
plurality of buttons (Col. 12, lines 48-52 and Figure 5-7 with corresponding text).

As in Claim 20, While Blowers teaches machine vision and data acquisition
operations controlled by a GUI through a user specified sequence of operations in a
data structure, they fail to show the motion control functionality with a motion control
operation as recited in the claims. In the same field of the invention, Weinhofer teaches
a graphical interface for creating a prototype through a specified sequence of operations
in a data structure similar to that of Blowers. In addition, Weinhofer further teaches
motion control operation and functionality through graphical programming (Col. 3, line
63 et seq. and Fig. 3) including a straight line move operation (Col. 6, lines 44 et seq.).
It would have been obvious to one of ordinary skill in the art, having the teachings of

Blowers and Weinhofer before him at the time the invention was made, to modify the

machine vision and data acquisition operations and functionality controlled by a GUI

through a user specified sequence of operations in a data structure taught by Blowers to

include the motion control operation and functionality including a straight line move

operation of Weinhofer, in order to obtain a graphical programming interface for

machine vision, data acquisition and motion control including a straight line move

operation. One would have been motivated to make such a combination because an

all-purpose graphical automotive controller would have been obtained, as taught by

Weinhofer.

As in Claims 24, 52 and 68, Blowers teaches automatically generating a

graphical program based on the sequence of operations executable to perform the

sequence of operations, a plurality of interconnected nodes ("developing a graphical,

control flow structure such as a tree structure", Col. 3, lines 15-16) that visually indicate

functionality of the graphical program (Col. 8, line 49 et seq.) and automatically

including the nodes without specifying user input of the nodes (Col. 3). (Col. 8, line 61 et

seq.).

As in Claim 26, Blowers teaches the graphical program comprises a graphical

data flow program (Col. 3, lines 14-35 and Col. 11, line 15) wherein the plurality of

interconnected nodes ("developing a graphical, control flow structure such as a tree

structure", Col. 3, lines 15-16) visually indicates data flow among the nodes (Col. 8, line

49 et seq.).

As in Claim 27, Blowers teaches automatically generating a text-based program based on the sequence of operations, executable to perform the specified sequence of operations; wherein the text-based program comprises lines of textual source code, wherein automatically generating the text based program comprises automatically including the lines of textual source code in the text-based program without user input specifying the lines of textual source code (Col. 3, lines 15-45, Col. 8, line 61 et seq.).

As in Claim 28, Blowers teaches displaying a first application GUI, creating the sequences comprises the first application creating the sequence, the first application receiving a request to invoke execution of the sequence from a second program external to the first application (Fig. 3 and corresponding text), the first application executing the sequence of operations in response to the request (Col. 11, lines 58-61) from the second program by invoking software routines (Col. 9, line 7 et seq.).

As in Claim 29, Blowers teaches automatically converting the sequence of operations to a hardware configuration format usable for configuring hardware of an embedded device to perform the sequence of operations and configuring the hardware of the embedded device to perform the sequence of operations using the hardware configuration format (Col. 2, line 47 et seq.).

As in Claim 32, Blowers teaches storing information representing the sequence of operations in a data structure (See Claim 1 rejection supra).

As in Claim 33, Blowers teaches the information representing the sequence of operations in the data structure does not comprise program code (Col. 3, line 64 et seq.).

As in Claim 34, Blowers teaches accessing the data structure to determine operations in the sequence and determining software routines to execute in order to perform the operations in the sequence and executing the software routines (Col. 8, line 61 et seq.).

As in Claims 69, 73, 76 and 78, Blowers teaches displaying a visual indication of results of performing the sequence while the sequence is being created, wherein the visual indication enables a user to evaluate the results of performing the sequence, wherein interactively displaying the visual indication comprises: for each operation in at least a subset of the operations included in the sequence, updating the displayed visual indication in response to including the operation in the sequence in order to visually indicate a change in the results of performing the sequence (Col. 4, lines 46 et seq.), wherein the change is caused by including the operation in the sequence, wherein updating the displayed visual indication provides interactive visual feedback to the user indicating the change caused by including the operation in the sequence (rejection of Claim 12 *supra*).

As in Claim 71, Blowers and Weinhofer discloses automatically converting the sequence of operations to a hardware configuration format. Blowers and Weinhofer fails to explicitly teach configuring the FPGA device to perform the sequence of operations using the hardware configuration format. as recited in the claims. Within the field of the invention, it would be obvious to one of ordinary skill in the art to program a removable device like a FPGA. One would have been motivated to make such a

combination because a removable hardware device for executing sequenced

instructions would have been obtained.

As in Claim 72, Weinhofer teaches controlling the DAQ measurement device to

acquire waveform data of the device under test (fig. 2, 6 and corresponding text).

9.   Claims 21-23, 70, 74-75, 77, 79 and 80-81 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Blowers et al., US Patent 6298474, herinafter Blowers, and

further in view of Weinhofer, US Patent 6442442.

Blowers and Weinhofer teach the disclosed claimed subject matter of Claims 1,

30, 36, 37, 43, 45 and 61.

As in Claims 21, 70, 74-75, 77, 79 and 80-81, While Blowers and Weinhofer

teach machine vision and data acquisition operations controlled by a GUI through a

user specified sequence of operations in a data structure, the sequence including a

motion control operation (Weinhofer Col. 6, lines 39-41), and further comprising

displaying a view of the motion control performed by the motion control operations in the

sequence on the graphical user interface (Weinhofer Col. 3, line 63 et seq.), wherein the

view graphically previews the cumulative movement specified by the motion control

operations in the sequence (Weinhofer Fig. 3 and corresponding text), they fail to show

the graph illustrating spatial trajectory cumulatively performed by the motion control

operations as recited in the claims. In the same field of the invention, Wolfson teaches

a graphical interface for creating a prototype through operations in a data structure

similar to that of Blowers and Weinhofer. In addition, Wolfson further teaches graph

illustrating spatial trajectory cumulatively performed by the motion control operations (Fig. 4 and corresponding text). It would have been obvious to one of ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify a graphical programming interface for machine vision, data acquisition and motion control including a straight line move operation taught by Blowers and Weinhofer to include teaches graph illustrating spatial trajectory cumulatively performed by the motion control operations of Wolfson, in order to obtain a machine vision, data acquisition and motion control sequenced control program including a graph illustrating spatial trajectory cumulatively performed by the motion control operations. One would have been motivated to make such a combination because a more accurate visual representation could be displayed, as taught by Wolfson.

As in Claim 22, Blowers teaches a two-dimensional position view for viewing a two-dimensional display of position data of the sequence in one or more of an XY, YZ, or ZX plane (Fig. 8 and corresponding text).

As in Claim 23, Wolfson teaches a three-dimensional position view for viewing a three-dimensional display of position data of the sequence (Fig. 4 and corresponding text).

Response to Arguments

Applicant's arguments filed 12/20/05 have been fully considered but they are not persuasive.

In response to the arguments that Blowers fails to teach DAQ functionality and a

GUI with a DAQ operation, the examiner disagrees. Data Acquisition is a broad term

and is taught by the prior art Furthermore, the applicants claim that Blowers fails to

teach "a measurement application involving data acquisition from a DAQ device", pg.

19, lines 2-3 of the submitted remarks. This is clearly shown by Blowers starting Col.

11, line 65. Blowers also teaches the Caliper tool 63, which finds edges used to

calculate measurements which can be seen as a DAQ operation. The input images are

acquired from the DAQ device, or camera, and then the measurement application takes

measurements during image analysis.

In response to applicant's argument that Blowers and Weinhofer are not

combinable, the examiner disagrees. Blowers and Weinhofer both acquire data and

control systems via a sequential programming method and therefore are both in the field

of the applicant's endeavor. The examiner recognizes that obviousness can only be

established by combining or modifying the teachings of the prior art to produce the

claimed invention where there is some teaching, suggestion, or motivation to do so

found either in the references themselves or in the knowledge generally available to one

of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

Weinhofer explains how motion controllers are part of many industrial control systems

including programmable controller systems (Col. 1, line 48). Blowers teaches a

programmable controller system. Weinhofer further explains how motion control

systems have become more complex, and that in order to make the system more

flexible, it would be advantageous to use something other than a sequential

programming language, (Col. 2, line 57- Col. 3, line 25) like a sequential program as

taught by both Blowers (Col. 4, line 65 et seq.) and Weinhofer (Col. 6, line 64).

In response to applicant's argument that the examiner's conclusion of

obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon

hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA

1971).

In response to the applicant's arguments performing the sequencing "without

code", the examiner disagrees. Blowers clearly teaches that the invention is meant to

be performed "without the user writing any of the application software", (Abstract).
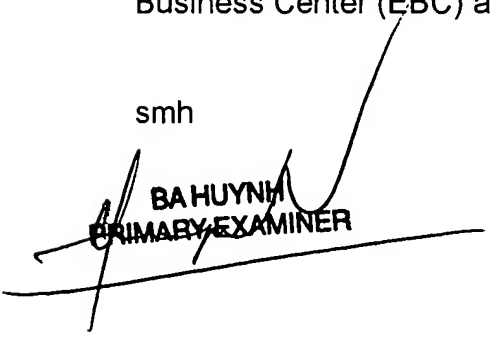
Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach similar motion control, machine vision, and data acquisition programming interfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara M. Hanne whose telephone number is (571) 272-4135. The examiner can normally be reached on M-F 7:30am-4:00pm, off on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WEILUN LO can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

smh

BA HUYNH
PRIMARY EXAMINER